



PSC*Connection*

Missouri Public Service Commission Publication VOL. 5, NO. 9 -- SUMMER 2015

Aging Infrastructure

Many small
water & sewer
companies
face unique
challenges.

State Oversight

Environmental Regulations

Chairman's Corner

It is common and easy to take utility service for granted. We flip a switch and the lights come on or the air-conditioner starts running to cool your home. We turn on the faucet and we get cold, clean water to drink. But the process by which we get lights, air conditioning, and cold, clean water is far more complicated than is readily apparent.

The water we drink is a combination of surface water and groundwater. Surface water includes rivers, lakes and reservoirs, while groundwater comes from underground. The United States has one of the safest water supplies in the world. Making sure that our water supply is safe, coming from many different sources as it does, is a complicated, energy intensive process.

Energy and water share a common link. Electricity is needed to acquire and treat water, and water is needed to help produce electricity, cool thermal plants and extract oil and natural gas from the ground. Water constraints, caused by drought or otherwise, can challenge the reliability of existing operations, as well as the physical, economic, and environmental viability of future projects. This bond between the two industries has been referred to as the water/energy nexus.

One of the functions of the Missouri Public Service Commission is to regulate water and sewer companies. They vary in size, from very small companies with a few 100 customers to one large company that serves about 450,000 people across the state. In the article, **"Water: A Building Block of Life,"** we examine some of the unique challenges, water and sewer companies face.

Although our most notable task is presiding over rate hearings, regulating utility companies also entails maintaining significant amounts of paperwork. The Commission houses many types of records and data; from utility tariffs (information on file with the Commission which describes the rates and charges of a utility along with the rules and regulations of that company) to rate case documents. Preservation of documents and records is not only important as a means of promoting transparency, but having ready access to historic documents and data is an important tool in ensuring the crafting of appropriate regulations.

Over the years, as technology has advanced so has the way the Commission stores its records. In 1913 – the year the Commission was formed – a decimal system was used to keep track of documents. This process evolved from micro-photographed records to computers. Learn more about this topic in the article: **"The Data Center: Preserving The Agency's Records."**

The Commission also has the important duty to keep abreast of regulatory changes on both the federal and the state level that may affect the utilities we regulate. In June 2014, the Environmental Protection Agency (EPA) released proposed carbon pollution standards for power plants in furtherance of the President's Climate Action Plan. The Clean Power Plan has generated significant analysis from the Commission and its Staff. The Commission has and will continue to work closely with the Missouri Department of Natural Resources, as well as, the Department of Economic Development-Division of Energy, to review the proposed EPA guidelines. Additional information about this topic is included in the article **"Building Blocks To Meet Carbon Reduction Goals."**

As we enter our second century of ensuring the safe and reliable delivery of vital utility services at just and reasonable rates, we continue to strive to keep consumers informed. I hope that you will enjoy this issue of the *PSConnection*.

Robert S. Kenney



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The Missouri Public Service Commission regulates investor-owned electric, steam, natural gas, water and sewer utilities in Missouri. The Commission also has limited jurisdiction over telecommunications providers in the state. Its mission is to ensure Missouri consumers have access to safe, reliable and reasonably priced utility service while allowing those utility companies under our jurisdiction an opportunity to earn a reasonable return on their investment. The PSC also regulates manufacturers and retail dealers who sell new and used manufactured homes and modular units. The Commission was established in 1913. The PSC is comprised of five commissioners, who are appointed by the governor.





SUMMER ENERGY SAVING TIPS

Summer is here. Check out these energy conservation tips designed to help you save money on your utility bill. See page 15.

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Our Mission

To ensure that Missourians receive safe and reliable utility service at just and reasonable rates.

On The Cover

In this edition, we take a look at the Water & Sewer Unit of the Missouri Public Service Commission.



Water:

A Building Block of Life

By Jim Busch

In Missouri, we are relatively fortunate. At this time, we have ample supplies of water. We have two of the major river systems in North America -- the Mississippi and Missouri Rivers. There are also various smaller rivers and creeks that provide access to quality water supplies.

Besides rivers, Missouri is fortunate to sit on top of aquifers that have provided years of water for consumption and use on farms and other agricultural needs. Missouri also has various natural and man-made lakes that provide water supplies throughout the state. Missouri generally receives ample rain that continues to rejuvenate these resources.

With all of these resources, why do we have to pay for water?

Consumers often ask this question when the Missouri Public Service Commission (Commission) Staff attends local public hearings.

The simple answer is that it costs money to gather the water from its various sources, treat it to make it safe for human consumption, and then transport it to our homes for use at our convenience. This use is available to us 24-hours a day, seven days a week. Examples

of these costs include the pump, if the source is underground; all of the transmission and distribution mains; chemicals, such as chlorine; and electricity to run the plants.

The Commission regulates investor-owned utilities. The Commission has a staff of technical experts that are assigned to various functions. There are auditors, attorneys, engineers and other technical experts. There are also Units within the Commission that have various experts with different specialties that focus on a particular industry or groups of industries. At the Commission, there is a group that specializes in the water and sewer industries. This group has expertise in engineering, auditing, economics, and plant operations. Unlike most of the other Units at the Commission, most of the Water and Sewer Units' time and efforts is spent on very small utilities with owners and operators who may not be familiar with Commission processes.

So what does the Commission's Water and Sewer Unit do?

First and foremost, the Water and Sewer Unit works to ensure utilities under Commission jurisdiction have the ability to provide safe and adequate service. The Unit also works closely with customers responding to complaints and inquiries.

Water and Sewer Unit Staff spends many hours in the field performing inspections of facilities and systems. Staff has to have an understanding of the various types of wastewater treatment mechanisms (i.e. lagoons, mechanical facilities, recirculating sand filters), various sources of supply for water, as well as how the collection and distribution systems collect the sewage and deliver it to the treatment facility or the distribution system that takes the water from the source and distributes it to the customers' homes.

Commission Staff has to have a thorough understanding of Commission rules and regulations. Due to the amount of time spent out in the field, Staff becomes very familiar with the various utilities and customers. The Unit conducts inspections of the various water and sewer systems to ensure that safe and adequate service is being provided to customers. If an inspector notices deficiencies or sub-par practices, a recommendation is sent to the company outlining the areas that need to be addressed and establishing the time the company has to correct the deficiency.

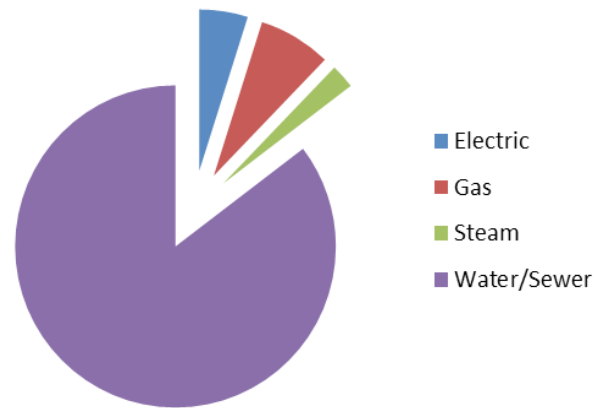
Another major component of the Unit is coordinating rate requests and working with Staff members from the Commission's other Units to perform on-site audits and reviews of the companies' office and field operations and billing practices.

The Water and Sewer Unit also works on applications from utilities who would like to be authorized by the Commission to provide water and/or sewer service. This is an important process because upon Commission approval, a new entity will be granted a certificate and will have to abide by the rules of the Commission, including billing practices, collections, and potential shut-offs. A utility company under Commission jurisdiction cannot set its own rates. Rates are set based upon a thorough Commission review of the costs to serve customers.

In Missouri, the Commission regulates investor-owned water and sewer utilities. It does not regulate municipal systems, such as Kansas City or Cape Girardeau. It also does not regulate water districts such as Cole County Public Water District #5 or Saline County Public Water District #2.

The Commission regulates approximately 70 water and sewer utilities. Missouri-American Water Company (MAWC) is the largest water and sewer company regulated by the Commission.

Missouri's Regulated Utilities



Water/Sewer Companies



MAWC provides water service to approximately 450,000 customers in various service territories from the St. Louis Metro area, to St. Joseph, down to Joplin, and in and around the Branson area. MAWC also provides service to almost 10,000 sewer customers. The remaining companies that are under Commission jurisdiction have fewer than 8,000 customers, with the vast majority having less than 500 customers.

Commission regulated water and sewer companies generally fall into one of three categories: ones that provide water service only, ones that provide only sewer service and ones that provide both water and sewer service. Most of the companies under Commission regulation are south of the Missouri River, generally in and around the Lake of the Ozarks, Springfield, and Branson areas. North of the river, water is provided generally by municipalities and water/sewer districts.

Aging infrastructure is one of the many challenges facing water and sewer utilities. It is a problem not unique to Missouri. Aging infrastructure can result in pipeline breaks which could result in customers being without service and could also result in costly system repairs.



Besides the Commission, water and sewer providers are also regulated by the Missouri Department of Natural Resources (DNR). DNR regulates water and wastewater systems for safety, not only for consumers, but for the environment as well, specifically the waters and streams of Missouri. Commission Staff works closely with DNR staff to ensure that the entities regulated by the Commission provide safe and adequate service at rates that are just and reasonable.



Pipes and gauges are part of a water system control room. Operators monitor various gauges to ensure proper pressure is maintained and the appropriate mix of chemicals is added to the system to help maintain safe and adequate service.

Challenges

As with other industries that are regulated by the Commission, there are many challenges facing the water and sewer industries. However, due to the smaller size of many of the water and sewer utilities, these challenges are especially problematic.

In the water industry, one of the newest challenges has been described as the water-energy nexus. Water companies use tremendous amounts of energy to pump water from their various sources of supplies and to distribute the water to customers through their infrastructure (pipes). Similarly, certain types of electric generation require large volumes of water in order to produce electricity. Water companies are looking for more energy efficient electric systems to operate their plants.

Aging infrastructure is another challenge facing water and sewer utilities, not only in Missouri but across the country. Aging infrastructure can result in pipeline breaks which could result in customers being without service and could also result in costly system repairs. Replacing aging infrastructure before a pipe fails is also costly, but necessary. Unfortunately, many of the small systems in Missouri do not have the ability to address these costly repairs in a timely manner.

One tool Missouri has to help offset investment in aging infrastructure is the



PSC Staff member Aaron Archer performs an on-site inspection.

Infrastructure System Replacement Surcharge (ISRS). The ISRS is a mechanism designed to allow a water utility to pass along to its customers, the costs of replacing and repairing old mains in the company's system outside the normal rate case process. In other words, with an ISRS, the company can replace aging infrastructure and get recovery of those costs in a more timely manner. This mechanism is in place for St. Louis area customers of the Missouri-American Water Company.

In the sewer industry, new, more stringent Environmental Protection Agency (EPA) requirements are requiring sewer companies to abandon older wastewater treatment facilities in favor of newer technologies.

Many Missouri sewer utilities, whether regulated by the Commission or not, lack the money or the number of customers to be able to afford upgraded facilities. This poses a huge financial burden, first on the utility and, ultimately, on its customers.

Smaller sewer systems may find it very difficult to meet more stringent EPA standards.

Commission regulated water and sewer companies generally fall into one of three categories: ones that provide water service only, ones that provide only sewer service and ones that provide both water and sewer service.

Unlike publicly-owned systems (such as municipalities and districts), privately-owned systems do not have access to federal or state government grants or low-interest loans.

Small, privately-owned systems often lack the funding or the collateral needed to obtain loans. This challenge started to have a real impact on small systems over the past year or two and will only get worse as current DNR operating permits continue to expire and new operating permits are sought and granted for those systems. While these issues are not limited to systems under the Commission's jurisdiction, the Commission and DNR acknowledge the burdens that new requirements will place on Missouri systems and both agencies are working to help make sure the systems regulated by the Commission can stay in compliance with environmental regulations.

One potential solution to this challenge is an existing, privately-owned utility could purchase the assets of the public system. Another path would be to sell the assets to an entity that is not currently regulated by the Commission, but would eventually be regulated by the Commission. Neither of these paths necessarily reduces the burden to consumers of mandated upgrades, but it does give the system the financial means to make the upgrades and be in compliance with DNR regulations. This trend will require continued close monitoring.

Another challenge that has been impacting small, Commission-regulated water and sewer companies for many years is how to continually provide safe and adequate service at just and reasonable rates. All but the largest water/sewer utilities regulated by the Commission have less than 8,000 customers, with the vast majority having less than 500 customers. With fewer customers, it could become very costly for each individual ratepayer to cover small system infrastructure and system upgrades.

Small Company Rate Request Rule

The Commission's mission is to ensure companies provide safe and adequate service to customers at just and reasonable rates. Those rates must also be set at a level which gives the utility an opportunity, not a guarantee, to earn a fair return on its investment.

One of the major components the Commission uses to help meet its mission is the rate case process. The vast majority of small water and sewer utilities do not have a complete understanding of Commission processes, nor do they have the financial ability to hire legal and technical experts to help. Due to the small number of customers most of these utilities have, any costs incurred are spread over that small number of customers, making them a significant driver for increased rates. Thus, ratepayers of small utilities, under a normal rate case process, would spend a high percentage of their bill simply for rate case expense, which does not help the utility provide safe or adequate service.

The Commission created a Small Company Rate Request Rule. This rule allows small utilities, those that have fewer than 8,000 customers, to initiate a rate request without the need to hire legal counsel or outside technical experts. This rule, in essence, allows for costs to be reviewed without the added burden of incurring high rate case expense.

Receivers

Some utilities are owned and operated by people who lack the necessary financial ability to make all needed improvements, repairs, and upgrades to maintain safe and adequate service.

For instance, an owner subject to various environmental regulations may not have created a reserve fund to allow for further investment. Unlike electric or gas corporations, many small

water and sewer systems were created by developers or other entities interested in selling lots and homes. It is relatively easy to create a water and wastewater system to serve a small number of customers, but not all developers are in the business to run a utility.

The transfer of small company stock requires no Commission approval. Thus, a developer who wants out of the business can sell the stock to anyone, even if that new person does not have the managerial, financial, or technical expertise to be a utility operator.

Sometimes owner/operators reach a stage where they are no longer capable of running the business and a child or spouse takes over the operations. State law requires these small systems to be regulated by the Commission if they are providing service for gain. Thus, someone who does not intend to be a regulated utility ends up a utility anyway.

Eventually, these types of systems become distressed and the owners realize they are not capable of providing service. When the situation gets to the point where an owner is unwilling or unable to provide safe and adequate service, then a receiver may be appointed by the courts

to manage the operation of the utility and to prepare the system for eventual sale to another entity.

Commission Staff continually works with receivers and potential purchasers of a system to maintain safe and adequate service, to assist receivers in the operation of the system and to help find financing or purchasers.

Water and sewer companies face unique challenges. How federal and state regulators, policymakers, utility companies and consumers respond to those challenges will help pave the way to ensuring future Missourians continue to have a safe and adequate water supply.

Jim Busch is the Manager of the Water and Sewer Unit for the PSC Staff.



State Oversight:

Working To Ensure Water Quality

By Curtis Gateley

Like most states, Missouri's Department of Natural Resources (DNR) implements federal health criteria for drinking water and water quality to protect our streams, lakes, and groundwater.

Drinking water criteria are based on prevention of disease, but also preventing taste and odor problems, staining of laundry, etc. Water quality criteria for streams and lakes are enforced on wastewater (sewage) discharges, and are based on extensive toxicity testing and studies. These water quality criteria and other treatment standards ensure protection of aquatic life, prevent contamination of drinking water sources, protect livestock, and all the other uses for surface and ground waters. The standards enforced by the states are established based on the latest scientific information available, and therefore can change as scientific knowledge advances.

Periodically states are required to review their standards and ensure they meet the minimums required by the federal government. States incorporate the federal requirements into their laws, or can adopt more protective requirements if they deem it necessary. For example, the federal Clean Water Act does not regulate groundwater quality but the State Clean Water Law does. This is appropriate since a large number of Missouri citizens obtain their drinking water from groundwater, which can be easily contaminated because of Missouri's karst geology.

For a utility, a change in a requirement from DNR can mean upgrades in treatment systems or other improvements. Thus DNR requirements often drive investments by utilities, which those utilities will seek to recover in rates from customers. These improvements must be considered with other needs, such as equipment that has reached the end of its useful life, equipment that has deteriorated or been damaged, or in response to population growth requiring larger facilities.

As is typical in most infrastructure projects, what was considered adequate to build decades ago is not acceptable today. For example, a lagoon for treating sewage, as was common technology in the early 1980s, will not meet modern requirements. Another example is installation of a treatment device to remove naturally occurring radionuclides from drinking water wells in some portions of Missouri, because in recent years these naturally occurring minerals have been determined to increase risk for cancer. New DNR requirements can mean a new drinking water or sewage treatment system may be considerably more

sophisticated, and therefore expensive, than what it is replacing, although with some innovative technologies or wastewater irrigation systems, the opposite may also be true.

DNR staff conducts inspections of drinking water and sewage treatment facilities for compliance with their regulations. DNR employs scientists and engineers trained to evaluate a facility's performance, and they share their findings with Commission Staff. Commission Staff likewise share the results of its inspections with DNR. In this way, the two agencies work closely to ensure that the utilities regulated by the Commission maintain safe and adequate service.

Curtis Gateley is a Utility Policy Analyst II for the PSC Staff. The Missouri Department of Natural Resources reviewed the contents of this article.



A sewage treatment lagoon.

What Happens When A Small Company Files A Rate Request?

Here's how the process works:

💧 The utility files a **letter** with the Commission **requesting an increase** in its rates. Within this letter, the utility spells out the reasons for seeking the additional revenue.

💧 The Commission creates a **case**.

💧 The company sends a **customer notice** explaining the company has requested an increase, the reasons for the request, and to give the customers contact information on how to make public comments or to express their concerns to the Commission, Commission Staff, or the Office of the Public Counsel (Public Counsel), a separate state agency that represents the general public before the Commission.

💧 **Staff conducts a full and complete audit and investigation** of the Company's books and records. This includes a thorough review by the Commission's Auditing Unit, a review by the Commission's Engineering & Management Services Unit, and an operations inspection by the Commission's Water and Sewer Unit. This review and investigation takes just under three months. Staff is required to submit its preliminary results to the company, Public Counsel, and other parties in 90 days.

💧 In 150 days from the rate case filing, or just less than five months after the initial letter requesting an increase in rates, **the Commission Staff and the Company are required to come to an agreement**. Due to the fact that additional information is sometimes needed, or there are other extenuating circumstances, the rule allows for an extension of up to 60 days ensuring that the Company and Staff can reach an agreement.

💧 **Public Counsel can either sign the agreement, not sign and not oppose the agreement, or request a local public hearing**. If a local public hearing is requested, the Commission will seek input from the public

The Commission Rule allows small utilities, those that have fewer than 8,000 customers, to initiate a rate request without the need to hire legal counsel or outside technical experts.

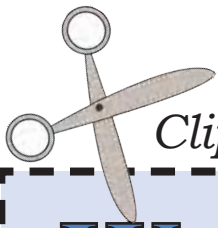
and the time when rates can go into effect is extended. If no local public hearing is requested, rates will go into effect in about 45 days. Thus, under the small company request rule, rates can go into effect in a little over six months without the need for the company to hire an attorney or outside experts. This is a significant savings for the Company and ultimately the ratepayer.

If no agreement can be reached, then a request for arbitration or an evidentiary hearing is made by Public Counsel and rate case expense becomes an issue. The utility is required to hire an attorney and may also need to hire an outside technical expert. Ultimately, final resolution of the small company rate request should take no more than 11 months.



In contrast, a large water or sewer company hires an attorney and has several technical experts. The Commission must decide whether to grant a request for a change in rates for a large water or sewer company within 11 months of the request. This process regularly includes local public hearings and an evidentiary hearing.

The five-member Commission ultimately decides the rate case and the decision is made through a written order. Commission decisions are subject to judicial review.



Clip & Save

Ways To Conserve Water

How much water you use at home depends on the size of your household, use habits, and the type of plumbing fixtures in your home. Minor water leaks account for more than 1 trillion gallons of wasted water each year, according to the U.S. Environmental Protection Agency. Here are some easy tips to save water:

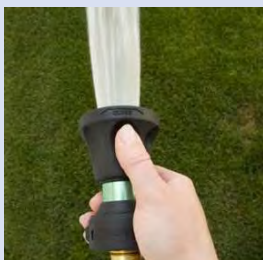


Turn Off The Tap

- Turn the water off while brushing your teeth or shaving.
- Take short showers.
- Keep drinking water in the refrigerator instead of letting the faucet run until the water is cool.

In The Kitchen & Laundry

- Scrape rather than rinse dishes before loading into a dish washer; wash only full loads.
- Wash only full loads of laundry or use the appropriate water level or load size selection on the washing machine.



Outdoors

- Sweep driveways, steps, and sidewalks rather than hosing them off.
- Control the flow of a hose with an automatic shut off nozzle.

Maintenance Tips

- Fix leaks. A dripping faucet can waste up to 3,000 gallons of water a year. A toilet that runs continuously can use almost 200 gallons per day.
- Consider water saving units, such as low-flow toilets, when replacing appliances.
- Review your bill to help monitor water use and detect leaks.





Data Center Staff scans a document into the PSC's Electronic Filing and Information System.

Preserving The Agency's Records

By Kim Happy

The Commission receives an average of 473 new cases annually and receives approximately 7,667 individual case filings a year. The Commission's Data Center is responsible for managing and maintaining the Commission's records and ensuring that the official Commission files are accurate and complete.

The Data Center's mission is to carry out the orders of the Commission; preserve the agency's records in an accurate and efficient manner; provide timely and convenient access to the records; and provide reliable and courteous service.

The Commission handles a variety of complex cases and the decisions and determinations pertaining to the cases are issued in the form of Commission Orders and Notices. One of the Data Center's primary duties is to distribute the Orders and Notices issued by the Commission to the case parties and to other parties of interest. Accurate and timely distribution is essential. Approximately 1,400 Orders and 220 Notices are distributed annually. The majority of the information is disseminated electronically.



At one time, case files were catalogued using card files. Now, all case indexes are electronic. Older PSC case files are available for viewing on microfiche and microfilm.



Melissa Anderson of the Data Center Staff sorts through files. Before the Electronic Filing and Information System was implemented, all of the Commission's records and case files were stored in paper form.

Commission decisions can be appealed to court. When an appeal is initiated, the required documents are delivered to the Data Center for processing and handling.

In turn, the Data Center transmits the appeal and filing fee to the appropriate court for filing. The matter is then turned over to the Commission's Litigation Department for handling.

In coordination with the Secretary of the Commission, the Data Center Staff serves as the custodian of records for the agency. This includes maintaining and cataloguing the agency's records, many of which must be kept permanently.

Data Center Staff and the Secretary of the Commission receive and respond to outside requests for case records, utility company

annual reports, tariff records, and other historical documents. The Data Center has been diligently working to digitize most of the agency's records to make them more readily accessible and to ensure timely responses to requests for records.

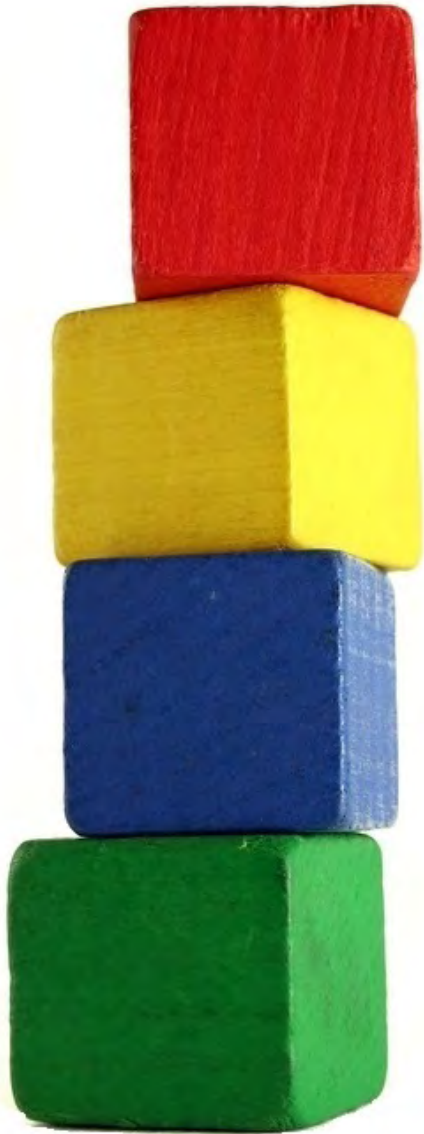
A significant portion of the Data Center's responsibilities involves information management for the Commission's Electronic Filing and Information System (EFIS). EFIS is a centralized records repository for the agency and includes a case management system, a complaint management system, and is equipped with automated workflow. In addition, EFIS is also an e-filing system where internal and external users, including consumers, utility company representatives, attorneys, and the general public, file various documents and compliance reports with the Commission. The Data Center provides user support for internal and external users of the system.

System quality and integrity are vital components of a successful system. Data Center Staff act as database administrators for EFIS. Data Center Staff reviews the previous day's submissions to ensure that the information is properly indexed and uploaded. When errors or omissions are found, data corrections and revisions are performed. An average of 87,445 documents is uploaded into EFIS annually. For calendar year 2014, Data Center Staff performed over 31,000 administrative data corrections.

Data Center Staff maintains and updates utility company tariffs, which contain the rates, terms and conditions, rules and regulations of the utility's service. The Data Center processes an average of 914 tariff submissions annually.

Consumers are invited to contact the PSC Data Center for questions they may have regarding EFIS or if seeking information on a specific case or issue before the Commission. The Commission's toll-free hotline number is 1-800-392-4211. We look forward to serving you.

Kim Happy is the Manager of the Data Center for the PSC Staff.



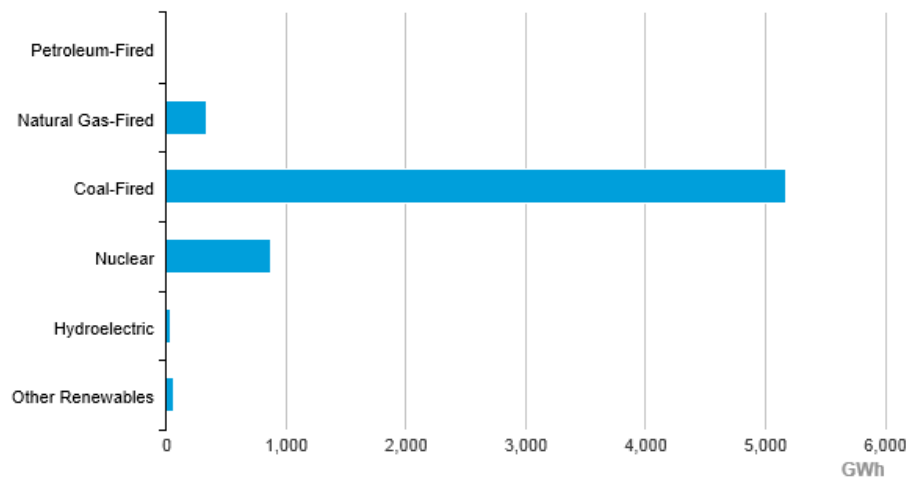
Building Blocks To Meet Carbon Reduction Goals

On June 25, 2013, President Barack Obama issued a Presidential Memorandum directing the Environmental Protection Agency (EPA) to develop carbon pollution standards for power plants as part of the President's Climate Action Plan.

The EPA released proposed guidelines in June 2014 that were designed to reduce greenhouse gas emissions from existing fossil fuel-fired electric generating units (i.e., power plants that generate electricity using coal).

The EPA states that by 2030, its proposal will reduce carbon dioxide (CO₂) emissions from the power sector by approximately 30 percent when compared to the CO₂ emission levels in 2005.

Missouri Net Electricity Generation by Source, Sep. 2014



Source: Energy Information Administration, Electric Power Monthly

What do the EPA guidelines mean for Missouri?

The Missouri Public Service Commission regulates investor-owned electric utilities (IOUs), and is the state agency responsible for setting rates and administering the Missouri Renewable Energy Standard (MRES) and the Missouri Energy Efficiency Investment Act (MEEIA). The Missouri Department of Natural Resources-Air Pollution Control Program (MDNR) is the state agency charged with enforcing the EPA's emission reduction guidelines.

The Commission has and will continue to work closely with the MDNR, as well as, the Department of Economic Development-Division of Energy, to review the President's directive and the proposed EPA guidelines. In December 2013 and December 2014, the Commission sent comments to the EPA, requesting maximum flexibility to meet Missouri's specific circumstances and expressing concerns with the proposed guidelines.

The EPA's proposed guidelines include four building blocks that states can use to meet CO₂ emission reduction goals:

- ☐ **Building Block 1:** improving plant efficiencies;
- ☐ **Building Block 2:** displacing coal generation by increasing generation from natural gas;
- ☐ **Building Block 3:** increasing renewable energy;
- ☐ **Building Block 4:** increasing energy efficiency programs.

Missouri's electricity generation is predominately coal. Missouri's IOUs have implemented programs under MEEIA, added renewable energy resources and made environmental improvements at existing coal-fired plants. The Commission's comments, which can be found on the Commission's website (www.psc.mo.gov) under the "electricity" tab, expressed concerns with such things as Missouri's ability to meet an EPA interim goal beginning in 2020; the requirement to increase the use of natural gas units by 70 percent without considering the time and cost needed to construct additional pipeline capacity; no recognition for renewable energy projects implemented prior to 2012; and, the ability of Missouri utilities to meet a 1.5 percent annual energy savings goal through energy efficiency programs.

The EPA is expected to release a final rule this summer. States have until June 2016 (or in some instances June 2017) to develop compliance plans for EPA consideration, with final state plans by June 2017 (or June 2018). The Commission is committed to continued active participation in the process in order to effectuate a reasonable and cost-effective outcome for Missouri.

Summer Energy Saving Tips



Some low cost measures to save money on your utility bill.

- Vacuum the coils of your refrigerator and check for frost buildup in refrigerators and freezers which causes an appliance to work harder.
- Don't constantly move the thermostat up or down throughout the day because this will waste energy and money.
- Use ceiling fans to assist in cooling. In the summer, blades should rotate counter-clockwise when viewed from below.
- Consider using a programmable thermostat to raise the temperature when the home is unoccupied.
- Close drapes, shades and blinds during the day to keep the sunlight from heating up your home.
- Make sure furniture and draperies are not blocking cooling outlets. Blocked outlets restrict air circulation, overwork the cooling equipment and increase operating costs.
- Close off rooms that are not used directly for cooling, so rooms most used by the household will remain cool.
- Shift the use of heat-producing and major appliances such as ovens, dishwashers, clothes dryers and irons from mid-day to early in the morning or later at night when possible.
- Turn off lights when they are not needed. Consider replacing burned out light bulbs with new energy efficient bulbs.
- Make sure your air conditioner filter is clean. Clean or replace filters as needed. Clogged filters cause the unit to use more energy (replacing them takes just seconds and will save you money). Also consider letting a professional tune up your air conditioner to maximize its efficiency.

Employee Spotlight



Five Questions With:

Evan Neuner

Utility Operations Technical Specialist II

1) What are your main job duties?

I work in the Gas Safety Unit of the Public Service Commission. My main job duties include conducting inspections of Missouri's natural gas operators (investor-owned and municipal). The Gas Safety Unit travels all over the state to make sure operators are following pipeline safety regulations. Our safety inspections include visual observation of the actual operation of the pipeline components.

2) How did you come to work at the PSC?

When I heard about this job opening, I had just graduated from Linn Technical College having a background in the utility lineman field. After graduation, I was working for a local carpenter when I tore my ACL playing softball. It was during the time that I was recovering from my injury that I found out about an opening at the PSC in the Gas Safety Unit. I applied for the position; was interviewed for the job and was eventually offered the position that I now have.

3) What did you do before working at the PSC?

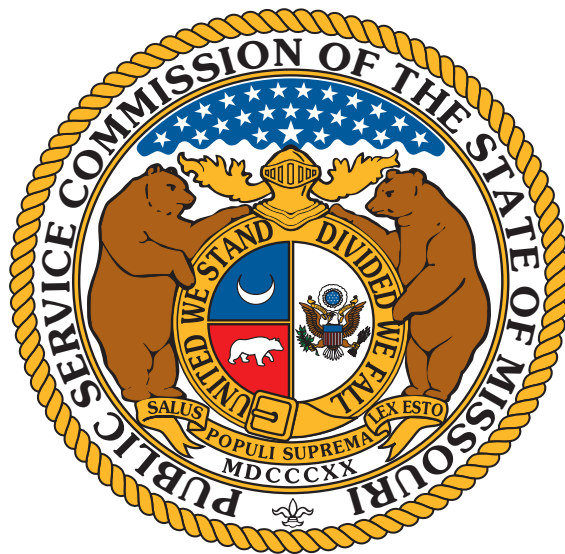
I am a 2012 graduate of Linn Technical College with an Associate's degree in the Electrical Distribution Systems program. I was working with a local carpenter building houses when I decided to apply at the Public Service Commission.

4) What is the most interesting thing about your job?

I would say that the most interesting thing about my job is traveling all over Missouri and seeing all the towns that I probably would have never heard of otherwise. They are all unique.

5) What is one thing people do not know about you?

This is my first full-time job and I never had an inside job before this one. All my previous jobs were summer jobs and were construction based. I had a summer lineman internship in Neosho, before doing carpentry for a few months. I have to say, I like this job the best by far. It's never 100 degrees in the Governor Office Building.



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